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EXAMINER

JARRETT, SCOTT L

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 06/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/874,909

Applicant(s)

CARPENTER ET AL.

Examiner

Scott L. Jarrett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 September 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because Figures 1a-4 are informal and/or difficult to read. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### ***Title***

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Method and System for Geodemographic Information Aggregation.

### ***Abstract***

3. The abstract of the disclosure is objected to because it is longer than 150 words. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The

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abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### ***Claim Objections***

4. Claims 1, 14 and 22 are objected to because of the following informalities:  
dataset is incorrectly/inconsistently spelled ("data set"). Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

5. Claims 1-22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.

Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result.

Regarding Claims 1-21, claims 1-21 only recite an abstract idea. The recited method for aggregating geo-demographic data does not apply, involve, or use the technological arts since all of the recited steps can be performed in the mind of the user or by use of a pencil and paper. The claimed invention, as a whole, is not within the technological art as explained above therefore claims 1-21 are deemed to be directed to non-statutory subject matter.

Mere intended or nominal use of a component, albeit within the technological arts, does not confer statutory subject matter to an otherwise abstract idea if the component does not apply, involve, use, or advance the underlying process. In the present case, none of the recited steps are directed to anything in the technological arts as explained above with the exception of the recitation of the term "database" in claims 1 and 16-21. Therefore, the term discussed is taken to merely recite a field of use and/or nominal recitation of technology.

Further regarding Claim 1, Claim 1 merely recites the steps of aggregating geo-demographic information; the claimed series of steps does not produce a useful, concrete, and tangible result (i.e. a plurality of data is aggregated but no further processing, analysis or utilization of the data is claimed). One example of a useful, concrete, and tangible result benefit might include utilizing the aggregated dataset to provide targeted marketing/products to selected consumers based on the aggregated dataset.

Regarding Claim 22, claim 22 only recites an abstract idea. The recited method for providing aggregated geo-demographic data does not apply, involve, or use the technological arts since all of the recited steps can be performed in the mind of the user or by use of a pencil and paper. The claimed invention, as a whole, is not within the technological art as explained above therefore claim 22 is deemed to be directed to non-statutory subject matter.

Further regarding Claim 22, Claim 22 merely recites the steps of aggregating geo-demographic data; the claimed series of steps does not produce a useful, concrete, and tangible result.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 10-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Regarding Claims 10-11 the disclosure does not clearly define the phrase "model." The phrase model as claimed can be interpreted in a plurality of ways including but not limited to: a function/equation, to simulate, representative pattern, pattern matching, construct, display, estimate, forecast or the like thereby making the term model as claimed vague and indefinite. Examiner interpreted model to mean any of the definitions discussed above.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-8, 12, 14 and 16-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Shaffer et al., U.S. Patent No. 5,901,214.

Regarding Claims 1 and 22 Shaffer et al. teach a method and system for providing a plurality of services/products, e.g. one-to-one marketing of products/services based on census and/or geodemographic data, wherein the system aggregates (combines, links, associates) into a “universal database” a plurality of different data sources (information, datasets, databases) including but not limited to parcel, property, US Census, US Postal Service, business financial (DUNS, TRW) and a plurality of other commercial, public and/or governmental databases (Abstract; Column 3, Lines 58-68; Column 4, Lines 1-25; Figures 1, 4 as shown below).

More specifically, Shaffer et al. teach a system and method for providing demographic information for a geo-demographic area (region, cluster, location, site, parcel, etc.) comprising:

- providing information/data relating directly or indirectly to occupants of a predefined geographic region (parcel, zip code, city, county, country, etc.) in a data store (database, data records, memory, etc.; Column 16, Lines 44-52; Figures 3-4);



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- providing different information/data relating directly or indirectly to occupants of a predefined geographic region in a data store (census, USPS, voting district, FIPS, parcel, property, household, telephone, business, etc.; Columns 21-27; Figures 3-4);

- associating (matching, mapping, combining, linking, etc.) selected information (data entries/records) from the sets of information with parcels of land (home, map, location, address, zip code, etc.; "5. Linking the Spatial Key to Spatial Key coded and/or indexed spatial, geographic, USPS address, household, individual, property, business location..." Column 16, Lines 58-68; Column 17, Lines 1-3; Column 4, Lines 31-52; Column 6, Lines 8-25);

- generating household-specific (user, customer, house, family, etc.) demographic profiles for each parcel of land (household, zip code, city, county, etc.) in the provided information (customer files/data; "...profiling based on census or geodemographic data...based on caller's profile...", Column 9, Lines 47-52; Column 13, Lines 53-65); and

- generating an aggregate dataset (combining, mapping, margining, associating, linking, etc.) for at least two parcels of land by combining the house-hold specific demographic profiles for each of the at least two parcels of land (e.g. by zip code, county, state, region, country, etc.; Column 16, Lines 43-51; Column 29, Lines 57-68; Column 30, Lines 1-2; Figure 2, Figures 1, 4 as shown below).

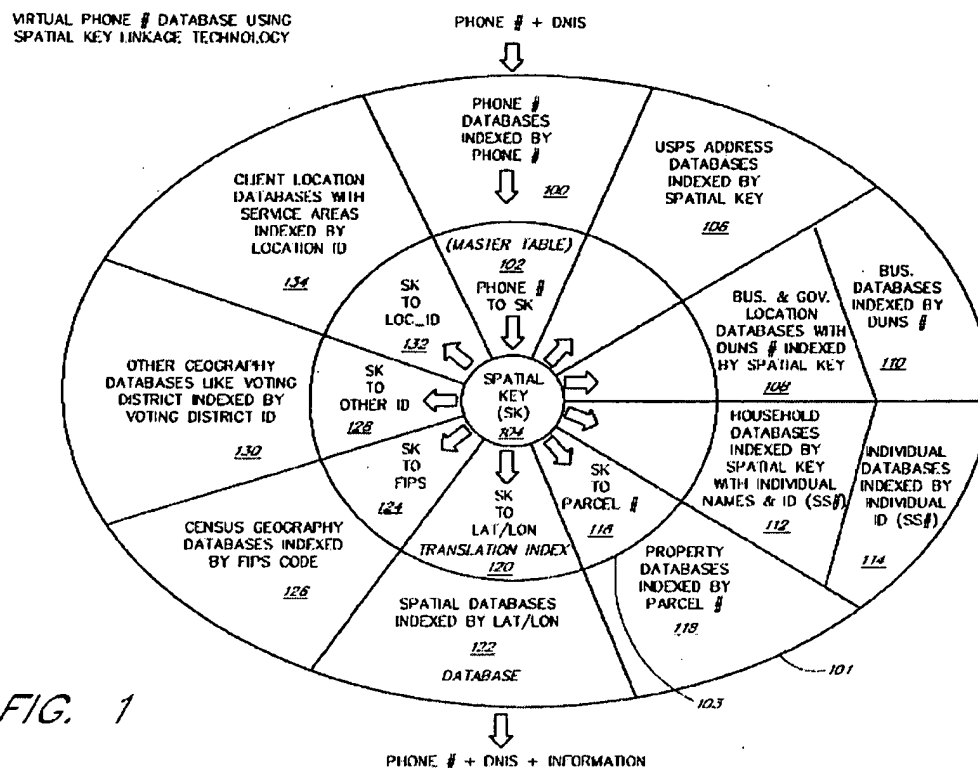


FIG. 1

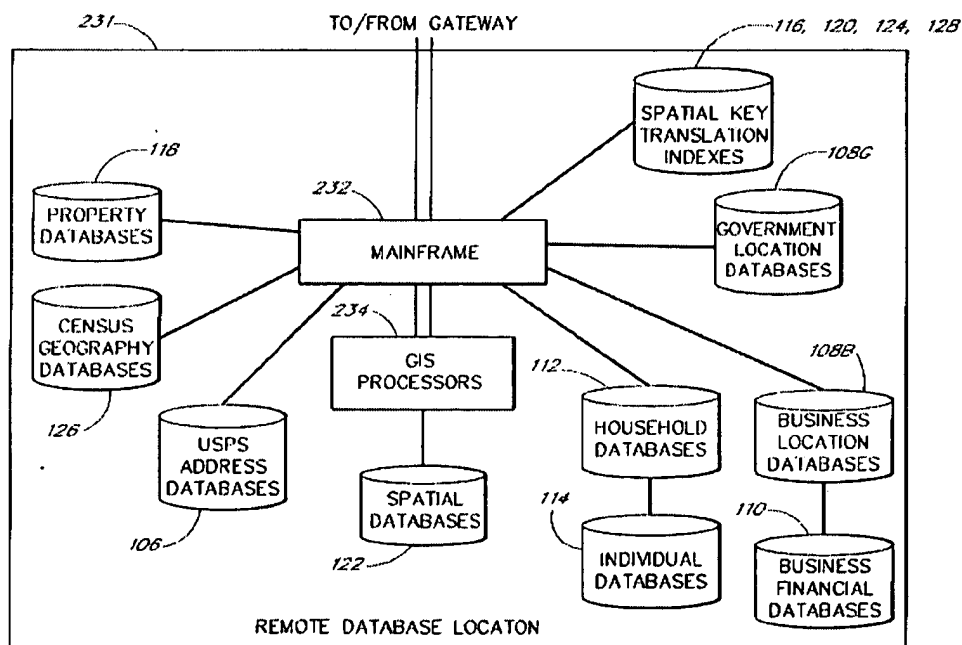


FIG. 4

Regarding Claim 2 Shaffer et al. teach a method and system for providing aggregated user information, including but not limited to geo-demographic information (information that refers to household preferences/attributes/characteristics that are not linked to any single household but are linked to all households within a predetermined geographic region, i.e. description of different characteristics about people based upon the location where they live), wherein the at least two parcels of land are geographically adjacent to one another in the predefined geographic region (property/real estate database; US Postal Service address database, census data, etc.; Column 10, Lines 5-11; Column 22, Lines 35-48; Figure 1, Element 106; Figure 4 as shown above).

Regarding Claim 3 Shaffer et al. teach a method a system for providing aggregated user information wherein the aggregate dataset includes information (data entries, records, etc.) that includes/comprises a union (combination, merge, linkage, fusion, etc.) of selected household-specific demographic profile information for at least two parcels of land (Column 4, Lines 31-53; Columns 21-27; Figure 4 as shown above).

Regarding 4 Shaffer et al. teach a method a system for providing aggregated user information wherein the aggregate dataset includes information (one or more records, fields, attributes, etc.) produced by analyzing selected household demographic profiles/information (e.g. generated spatial key, generated user profiles,

tabulation/generation of voting statistics; Column 11, Lines 28-68; Column 12, Lines 1-18; Column 27, Lines 8-16; Column 23, Lines 14-55; Figure 1 as shown above).

Regarding Claim 5 Shaffer et al. teach a method a system for providing aggregated user information wherein the selected household demographic profiles (data records, information) of the aggregate data are a summary (overview, brief, salient point, etc.) of the selected information (i.e. provides a plurality of information, summary, related to individuals, businesses and households; "...statistics summary files...", Column 27, Lines 8-17; "...contains additional several hundred demographic variables such as average household income and counts of households by age and by income...", Column 26, Lines 7-10; Columns 21-27).

Regarding Claim 6 Shaffer et al. teach a method a system for providing aggregated user information wherein at least one data record (information, dataset, entry, etc.) in the provided information (first and second databases) identify one or more occupants in each of at least two parcels of land ("...determine the other individuals living at that address...", Column 21, Lines 30-35; Column 23, Lines 15-68; Column 24, Lines 1-18).

Regarding Claim 7 Shaffer et al. teach a method a system for providing aggregated user information wherein one of the data entries/records (pieces of information) of the aggregate dataset includes a summary of the number of occupants

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(population) of at least two parcels of land (e.g. census data for census blocks inherently comprising at least two parcels of land and including population count and other information; Column 25, Lines 58-68; Column 26, Lines 1-10).

Regarding Claims 8 and 12 Shaffer et al. teach a method a system for providing aggregated user information wherein at least one of the household-specific demographic profiles (user information) comprises information (has a record, entry, data, etc.) that cannot be determined (i.e. missing, incorrect, improperly formatted, etc.) from data entries/information in the provided information (first and second databases; combination of the information; Column 3, Lines 52-57; Column 4, Lines 21-20).

Regarding Claims 14 Shaffer et al. teach a method and system for providing a plurality of users (systems, business, etc.) access to the aggregated dataset (universal database; "Applications" – address lookup, 911, directions, etc., Columns 12-15; Column 30, Lines 4-40; Figures 2-4).

Regarding Claims 16-21 Shaffer et al. teach a method and system for aggregating and providing a plurality of aggregated data wherein the aggregated dataset comprises a plurality of information resources (databases, data stores, etc.) including but not limited to a plurality of commercial, public and governmental datasets such as the U.S. Postal service (Column 22, Lines 35-48), U.S. Census (Column 25, Lines 58-68), voting district/precinct, school district (Column 26, Lines 60-68), driver

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license number (Column 23, Lines 15-34), driving history (Column 23, Line 50), vehicle registration (Column 23, Lines 35-55), property/real estate tax (Column 23, Lines 60-65; Column 24, Lines 10-17), power line (utility; Column 25, Lines 35-38) and the like.

More generally Shaffer et al. teach that the system is designed/intended to aggregate a plurality of datasets into a universal database (Column 4, Lines 31-53; Column 16, Lines 44-51; Figure 1 as shown above).

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 9-11, 13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer et al., U.S. Patent No. 5,901,214 as applied to claims 1-8, 12, 14 and 16-22 above.

Regarding Claims 9-11 and 13 Shaffer et al. teach a system and method for providing demographic and other user information for geographic regions (households, parcels, city, state, etc.) wherein the system aggregates data from a plurality of datasets each of which further extends/expands/enhances the profile of the user/household and each of which may contain incomplete, missing, incorrect or improperly formatted data (Column 3, Lines 52-57; Column 4, Lines 21-20). Shaffer et al. further teach the need

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to correct (re-formatting, standardizing, re-generating, etc.) information aggregated from the plurality of datasets (Column 5, Lines 14-30).

Shaffer et al. further teach that the system utilizes a plurality of commercially and/or publicly available datasets that provide updates and projections (forecasts, estimates, etc.) for population, households, estimated income and a plurality of other user data (Column 23, Lines 18-25; Column 25, Lines 58-62; Column 26, Lines 11-18).

Shaffer et al. does not expressly teach generating the missing/incorrect data (entry) by projecting (predicting, estimating, extrapolating, relating, etc.) and/or the use of a model as claimed

Official notice is taken that it is told and well known to estimate (project, forecast, predict, etc.) missing and/or incomplete data utilizing existing data/information via a plurality of mechanisms such as interpolation, extrapolation, models/simulations and the like wherein the purpose of generating (estimating, forecasting, predicting, etc.) the missing/incorrect data includes such things as trend analysis, forecasting, removal of incorrect data and the like (i.e. filling in the gaps in the data in order to create a more complete and/or accurate picture/profile).

It would have been obvious to one skilled in the art at the time of the invention that the method and system for aggregating and providing demographic information for a geographic region (geo-demographic information) as taught by Shaffer et al. would

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have benefited from generating corrected and/or missing information via a plurality of mechanisms including but not limited to projecting and modeling; the resultant system providing a more accurate and complete aggregated dataset of geo-demographic information.

Regarding Claim 15 Shaffer et al. teach that the method and system for providing user information, including but not limited to user demographic/geo-demographic information, utilizes a remote database processing center (Figure 2, Element 231) wherein the remote center provides a plurality of capabilities including but not limited to security (Column 29, Lines 58-68).

Shaffer et al. does not expressly teach preventing a user from accessing household specific information.

Official notice is taken restricting access to information, especially personal and/or sensitive information such as the aggregated demographic information utilized by the system of Shaffer et al. (e.g. social security numbers, salary, and the like) is old and very well known in the art (i.e. the need/desire/requirement to keep user information private and confidential).

It would have been obvious to one skilled in the art at the time of the invention to modify the system and method for aggregating and providing geo-demographic



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information as taught by Shaffer et al. to prevent unauthorized users from accessing sensitive (private, confidential, personally identifiable) information in order to insure user privacy; the resultant system providing a level of comfort/trust between the users providing the information and the businesses utilizing the information.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- John, Abhai, U.S. Patent No. 5,420,968, teach a method and system for graphically displaying aggregated datasets utilizing objects.

- Uotani, Akira, U.S. Patent No. 5,553,211, teach a method and system for graphically displaying data on images such as maps via overlapping.

- Melchione et al., U.S. Patent No. 5,966,695, teach a method and system for aggregating user information (e.g. demographic profile information) from a plurality of internal and external sources into a centralized/standardized dataset (database) to create "complete" customer profiles. Melchione et al. further teach that the aggregated dataset comprises a multiple-level hierarchy of household, customer and account information and prevents unauthorized access to the aggregated data set via a secure login/password.

- Almeida et al., U.S. Patent No. 6,008,808, teach a method and system for graphically representing (visualizing) complex layered/hierarchical data from an aggregate dataset.

- Chou et al., U.S. Patent No. 6,061,658, teach a system and method for providing targeted information (content, services, products, etc.) to customers based on a user profile generated from a plurality of aggregated datasets ("customer data enriched with corresponding household, demographic data from external data

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suppliers"). Chou et al. further teach the utilization of well-known data clustering algorithms that are used to "mine" the customer/user profile information.

- Kappel, George, U.S. Patent No. 6,144,988, teaches a method and system for providing and aggregating a plurality of user information (e.g. geodemographic data, USPS, etc.) into a universal format that is provided to Internet web sites. Kappel further teaches that the system is structured so as to maintain the privacy of the user information.

- Won, Shui-Ying, U.S. Patent No. 6,104,410, teaches a method and system for visualizing aggregated data (e.g. geodemographic data) in multiple-dimensions.

- Tesler, Joel, U.S. Patent No. 6,137,499, teaches a method and system for graphically representing complex aggregate data.

- Healey et al., U.S. Patent No. 6,298,328, teach a method and system for providing and aggregating user information (e.g. geodemographic, household, demographic, psychographic) from a plurality of internal and external datasets wherein the aggregated information (user profiles) is used to forecast market size data.

- Verba et al., U.S. Patent No. 6,236,977, teach a marketing system and method wherein a plurality of household/user profile information in a predetermined geographic region is aggregated (e.g. census) and utilized to conduct targeted marketing.

- Shaffer et al., U.S. Patent No. 6,748,426, teach a method and system for providing user information (e.g. demographic, geodemographic, etc.) over the Internet utilizing an aggregated dataset wherein the aggregated dataset comprises a plurality of data sources including but not limited to US Postal Service, property/real estate,

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transaction/merchant, household, business, parcel and the like. Shaffer et al. further teach the development of user/household profiles that include the aggregated data (universal/virtual database) and are used to provide personalized services/products and content.

- Nascenzi et al., U.S. Patent No. 6,879,960, teach a method and system for generating customer/user profiles/preferences wherein the user information includes commercially available geo-demographic databases and is provided anonymously (i.e. protecting user information privacy) for other systems that in turn provide personalized/targeted services, products and/or content. Nascenzi et al. further teach that geodemographic information refers to household preferences that are not linked to any single household but are linked to all households within a predetermined geographic region.

- Tripp et al., U.S. Patent Publication No. 2002/0198786, teach a marketing system and method wherein the system utilizes a plurality of aggregated (associated, linked) datasets (e.g. "census data is collected and used to cluster households based upon geo-demographic characteristics and behavior") to provide targeted marketing via model/user profiles, the model profiles encompassing "a more sophisticated, comprehensive, and directly actionable profile." Tripp et al. further teach that the targeted marketing system and method protects the users/individuals privacy by only providing aggregated data for a predetermined geographic region.

- Walsh et al., U.S. Patent Publication No. 2003/0105660, teach a method and system for merging (aggregating, linking, associating, fuse, etc.) multiple independent

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datasets/databases ("MultiBasing"; e.g. demographic) on a respondent/population level for marketing purposes. Walsh et al. further teach that the system projects (estimates) missing information/data encountered during the merging of the independent datasets.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott L. Jarrett whose telephone number is (571) 272-7033. The examiner can normally be reached on Monday-Friday, 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hafiz Tariq can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SJ  
6/17/2005



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SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600